

Exhibit J

EXHIBIT J

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Special Copy

May 23, 1969

Mr. R.G. Drosendahl
District Design Engineer
Division of Highways, District 7
P.O. Box 2304
Los Angeles, California 90054

Project: Seacliff Area

Dear Mr. Drosendahl:

In connection with my letter to you of April 2, 1969, and the conference with you and Mr. Harvey on May 20th I have the following recommendations to make which I feel will permit you to firm-up your design of the highway relocation in the Seacliff area.

(1) Slope protection, west end of Seacliff.

A curved reveted slope from the new offshore fill to tie-in with the existing shoreline at station 110 is recommended. This reveted slope would be in front of houses 4-7, inclusive, and would start with a crest elevation of +15 feet at the walkway on the new fill and terminate at station 110 with a crest elevation of +10 feet. The nature of the tie-in to the existing revetment eastward from station 110 should be based on a field inspection.

As to whether or not the private property eastward of station 110 also must be protected by a reveted slope should be based on a wait-and-see attitude considering the extent of profile changes which might occur with time at the various ranges. The periodic profiles of the established ranges will provide information on any serious beach erosion. From the field inspection as well as from the recent series of ground photographs of the Seacliff beach it is evident that this beach consists of a thin layer of sand over a cobble base. Any serious erosion of the property in this area appears only a remote possibility, as the sand on the beach could be swept away only to leave the stable cobble beach which would still serve as a protection of the private waterfront property.

(2) Feeder Beach.

As mentioned in my letter of April 2 the impoundment of an appreciable volume of littoral drift as a result of the proposed offshore construction is so small compared with the annual rate of drift that no program of beach nourishment appears necessary. If the resurveys of the beach ranges in the Seacliff development show appreciable changes following start of construction, some sand could be easily added as necessary in the vicinity of range 110. Here again, the wait-and-see attitude should be adequate.

Exhibit J

May 23, 1964
(page 2)

(3) Groins.

As mentioned above, the Seacliff beach under natural conditions appears to be a cobble base with a thin layer of sand on the surface. No serious erosion of the cobble shoreline appears possible, and the use of groins therefore is unwarranted in the planning at this time.

(4) Beach Profiles.

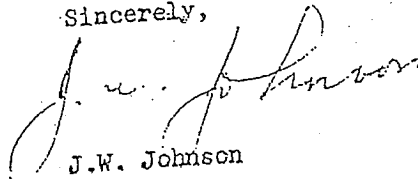
To continuously monitor the beaches changes (both in the natural conditions prior to construction and during and following construction) the beach profiles should be superimposed on the same plot as the data become available immediately after each survey. The nature and extent of any beach changes can then be evaluated.

(5) Summary.

The data on the Seacliff beach which are now available, combined with periodic future surveys of beach ranges, should provide an adequate guide to beach processes in the Seacliff area as a result of the new highway construction. Except for some minor bank revetment in the vicinity of station 110, other shoreline protection, groins, and sand nourishment should be based on a wait-and-see attitude.

I trust that these comments are adequate for your present design needs.

Sincerely,


J.W. Johnson

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* The stone shown in ground photo 6650-5 which protects the firehouse should be of sufficient size to construct the curved revetted slope near station 110.

